

CLAIMS

What is claimed is:

1. A brake assembly comprising:

a caliper having a first brake pad and a second brake pad, said first brake pad movable relative to said caliper;

a brake actuator in communication with said first brake pad, said brake actuator comprising a first threaded member rotatable about a first axis and a second threaded member rotatable about a second axis;

said first threaded member having a first thread characteristic for moving said brake actuator at a first speed and a first force;

said second threaded member having a second thread characteristic for moving said brake actuator at a second speed and a second force; and

wherein said first speed is greater than said second speed and said first force is lower than said second force.

2. The brake assembly of Claim 1 wherein said first thread characteristic comprises a first thread pitch and said second thread characteristic comprises a second thread pitch, said first thread pitch greater than said second thread pitch.

3. The brake assembly of Claim 2 wherein said caliper has a first hole having threads of about said first thread pitch, said first hole rotatably receiving said first threaded member.

4. The brake assembly of Claim 3 wherein said first threaded member has a second hole having threads of about said second thread pitch, said second hole rotatably receiving said second threaded member.

5. The brake assembly of Claim 1 wherein said first axis is coaxial with said second axis.

6. The brake assembly of Claim 5 wherein said first threaded member is coupled for axial movement with said second threaded member.

7. The brake assembly of Claim 6 wherein said second threaded member is decoupled from axial movement with said first threaded member at a predetermined condition.

8. The brake assembly of Claim 7 wherein said predetermined condition relates to a level of frictional resistance encountered by said first threaded member.

9. The brake assembly of Claim 1 including an electric motor for driving at least one of said first threaded member and said second threaded member.

10. A brake assembly, comprising:
  - a brake;
  - a brake actuator in communication with said brake;
  - a first drive mechanism for driving said brake actuator, said first drive mechanism having a first speed and a first force; and
  - a second drive mechanism for driving said brake actuator, said second drive mechanism having a second speed and a second force wherein said first speed is faster than said second speed and said first force is lower than said second force.
11. The brake assembly of Claim 10 wherein said first drive mechanism comprises a first threaded member having a first thread characteristic and a second threaded member having a second thread characteristic, said first thread characteristic different from said second thread characteristic.
12. The brake assembly of Claim 11 wherein said first thread characteristic comprises a first thread pitch and said second thread characteristic comprises a second thread pitch, said first thread pitch greater than said second thread pitch.

13. The brake assembly of Claim 12 including a first threaded body having a first hole with threads of about said first thread pitch and a second threaded body having a second hole with threads of about said second thread pitch, said first hole rotatably receiving said first threaded member and said second hole rotatably receiving said second threaded member.

14. The brake assembly of Claim 13 wherein said second threaded body comprises said first member.

15. The brake assembly of Claim 13 wherein a first rotational friction level exists between said first threaded member and said first threaded body and a second rotational friction level exists between said second threaded member and said second threaded body, said first rotational friction level initially less than said second rotational friction level.

16. The brake assembly of Claim 10 wherein said first drive mechanism is sequentially operable relative to said second drive mechanism.

17. The brake assembly of Claim 10 including an electric motor coupled to said second threaded member.

18. A method of braking, comprising the steps of:
  - a) moving a brake actuator at a first speed and at a first force;
  - b) moving the brake actuator at a second speed and at a second force; and
  - c) applying the brake actuator to a brake pad wherein the first speed is faster than the second speed and the first force is less than the second force.
  
19. The method of braking of Claim 18 wherein step a) occurs prior to step b).
  
20. The method of braking of Claim 18 wherein step b) occurs after a predetermined threshold is reached.